July 17, 2006

TO: Department of the Interior's FACA Committee on Natural Resource Damages

FROM: The Q2 Subcommittee (John Bascietto, Bill Bresnick, Bill Brighton, Linda Burlington, Steve Kress, Craig Potter, Mark Shurtleff, and Shannon Work; and Paula Cotter, *ex officio*)

RE: Preliminary Draft Report on Question 2

This preliminary draft report is a "snapshot" of the Q2 subcommittee's efforts to wrestle with the question assigned to it and, like those efforts, is very much a work in progress. The analysis and recommendations in this draft reflect initial discussions within the subcommittee, but they were drafted by subgroups or individual subcommittee members and have not yet been fully considered or agreed upon by the subcommittee as a whole.

I. The Question

This subcommittee has been asked to address the following general question:

> *Should DOI's Regulations provide additional guidance for determining whether direct restoration, rehabilitation, replacement, or acquisition of equivalent resources is the best strategy for addressing natural resource injuries?*

The Q2 subcommittee identified eight sub-questions for consideration, which were circulated and endorsed by the full Committee on March 2, 2006:

1. Should there be a preference for on-site or in-kind restoration (or any other preference among alternative strategies for restoration/replacement/acquisition)?
2. Should there be a "grossly disproportionate to value" limitation on restoration projects?
3. Should there be mandatory "threshold criteria" for restoration alternatives instead of the current system of ten unweighted discretionary criteria?
4. Is more guidance needed on the appropriateness of projects that provide "services" (such as recreation) without enhancing natural resources?
5. Are there other revisions that should be suggested to the existing criteria for evaluating restoration alternatives?
6. Do we need to foster an earlier focus on restoration in the NRDA process? If so, how?
7. What role, if any, should pre-existing regional restoration plans play?
8. How (if it is worthwhile at all) can the NRDA process be made more compatible with the "integration" or coordination of response action planning with injury assessment and restoration planning?

II. Background

Under DOI's Type B rule, the development of a restoration plan and selection of natural

resource restoration, rehabilitation, replacement, or acquisition alternatives are governed by 43 C.F.R. § 11.82 (fully reproduced in Attachment 1), whose current language was adopted in DOI's initial post-Ohio rulemaking, 59 Fed. Reg. 14281 (March 25, 1994). Section 11.82(a) states in part that:

> The authorized official shall develop a reasonable number of possible alternatives for the restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. . . . The authorized official shall then select from among the possible alternatives that he determines to be most appropriate based on the guidance provided in this section.

43 C.F.R. § 11.82(a). The alternatives that may be considered are limited to "those actions that restore, rehabilitate, replace, and/or acquire the equivalent of the injured resources and services to no more than their baseline, that is, the condition without a discharge or release. . . ." 43 C.F.R. § 11.82(b)(iii). The alternatives may "range from: intensive action . . . to return the various resources and services provided by those resources to baseline conditions as quickly as possible; to natural recovery with minimal management actions." 43 C.F.R. § 11.82(c)(1). Trustees must consider a "natural recovery" alternative in every case, 43 C.F.R. § 11.82(c)(2), and federal trustees are directed not to choose an alternative that requires the acquisition of land for federal management unless no restoration, rehabilitation, or replacement action is possible. 43 C.F.R. § 11.82(e).

The Type B rule provides a non-exclusive list of ten criteria for evaluating alternatives, as follows:

> *(d) Factors to consider when selecting the alternative to pursue.* When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:
>
> (1) Technical feasibility, as this term is used in this part.
>
> (2) The relationship of the expected costs of the proposed action to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
>
> (3) Cost-effectiveness, as that term is used in this part.
>
> (4) The results of any actual or planned response actions.
>
> (5) Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.

(6) The natural recovery period determined in 11.73(a)(1) of this part.

(7) Ability of the resources to recover without alternative actions.

(8) Potential effects of the action on human health and safety.

(9) Consistency with relevant Federal, State, and tribal policies.

(10) Compliance with applicable Federal, State, and tribal laws.

43 C.F.R. § 11.82(d). The Rule provides no hierarchy among the ten listed factors, and, while all must be evaluated, none is mandatory in the sense that an alternative would have to be rejected if the individual factor is not satisfied.

Several challenges to Section 11.82 were raised and rejected in Kennecott Utah Copper Company v. U.S. Department of the Interior, 88 F.3d 1193 (D.C. Cir. 1996) ("Kennecott v. DOI"):

-The Court agreed with DOI that trustees may choose among restoration, rehabilitation, replacement, and acquisition strategies without giving any one approach priority and, therefore, rejected arguments by the State of Montana that CERCLA should be interpreted to require a preference for physically restoring resources over off-site replacement or acquisition of comparable resources. *See* Kennecott v. DOI, 88 F.3d at 1229.

-While endorsing the Rule's direction to trustees to *consider* the effects of any actual or planned response actions, the Court rejected arguments that the Rule must require consistency between restoration plans and cleanup decisions in every case. *See* 88 F.3d at 1219 (Although consistency between restoration and response actions is generally desirable, some degree of inconsistency may at times be necessary, "particularly where short-term and long-term considerations dictate seemingly conflicting responses (e.g., grass to prevent erosion, followed by reforestation, which kills the grass).").

-The Court also declined to require DOI to include an exception to the general rule that trustees should seek to return the injured resources and services to baseline where the costs of full restoration/replacement, and/or acquisition would be "grossly disproportionate" to the value of the injured resources. *See* 88 F.3d at 1218. The Court found that the decision criteria provided by the Rule, including the requirement that trustees consider "[t]he relationship of the expected costs of the proposed action to [its] expected benefits . . . [,]" are sufficient to exclude unreasonably costly actions. Id.

NOAA's rule for natural resource damages assessments under the Oil Pollution Act ("OPA") provides an overlapping, but in some respects different, set of criteria. The OPA rule requires that every project satisfy two threshold criteria:

(a) the alternative must be technically feasible, and

(b) the alternative must comply with applicable laws.

15 C.F.R. § 930.53(a)(2). Alternatives that pass the threshold criteria are then to be evaluated based on, at a minimum:

(1) The cost to carry out the alternative;

(2) The extent to which the alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses;

(3) The likelihood of success of each alternative;

(4) The extent to which each alternative will prevent future injury as a result of hte incident and avoid collateral injury as a result of implementing the alternative;

(5) The extent to which each alternative benefits more than one natural resource and/or service; and

(6) The effect of each alternative on public health and safety.

15 C.F.R. § 930.54(a) (*see* Attachment 2).

III. Subquestions Addressed by Q2 Subcommittee

As noted above, the following discussions were drafted by individual subcommittee members and, while they reflect views expressed in initial subcommittee meetings, have not yet been fully reviewed by the subcommittee as a whole.

1. Should there be a preference for on-site or in-kind restoration (or any other preference among alternative strategies for restoration/replacement/acquisition)?

On-site, in-kind restoration often provides the most direct and reliable way to put the environment back to its baseline condition. When possible, such direct restoration should be preferred over out-of-kind projects at the site or elsewhere. We must recognize, however, that direct restoration may be impractical and that, in some situations, off-site restoration actions or actions that provide substitute resources may be more efficient and even, ultimately, more effective.

The existing Type B Rule provides flexibility to trustees so that they may be sensitive to the unique situation associated with hazardous spills. Some restoration for migratory birds or fish may be appropriate at off site locations. For example, removal of introduced predators on the breeding range of certain seabirds may result in more of the affected species by increasing the productivity of the breeding population.

The range of possible alternatives considered could range from intensive action on the part of the authorized officials to no action to return the various resources and services to baseline condition.

In summary, trustees should first consider opportunities for direct on-site restoration, but should also continue to have discretion to consider off-site and out-of-kind restoration options.

2. Should there be a "grossly disproportionate to value" limitation on restoration projects?

As noted above in the background discussion, the court challenge to section 11.82 of the DOI regulations included a request that DOI provide an exemption from restoration that is "grossly disproportionate" to the value of the injured resources. Also as noted, the court declined. Kennecott v. DOI, 88 F.3d at 1218.

The DOI regulations currently have two decision factors that address cost. Section 11.82(d)(2) requires a comparison of costs and benefits while section 11.82(d)(3) is a cost-effectiveness consideration. Cost-effectiveness is a comparative tool which helps one judge between or among alternatives. The consideration of restoration projects by first insisting that the cost of the project be somehow "proportionate" to the value of the resources would be an amplification of the existing cost-benefit provision in that it is cost-benefit analysis that makes absolute, rather than comparative, judgments and can conclude that a project is or is not worth doing. On the other hand, cost effectiveness for purposes of section 11.82(d)(3) is defined in section 11.14(j) to mean "that when two or more activities provide the same or a similar level of benefits, the least costly activity providing that level of benefits will be selected."

Note the analytic difference between cost benefit and cost effectiveness consideration. The former tries to consider a relationship between dollars and benefits. The latter compares benefits per dollar to benefits per dollar. At least in the latter case, we are dealing with comparable units of measurement. [We can quickly dispose of the cost effectiveness issue, as we are unaware of any cases in which a choice of restoration projects was available and the trustees chose a significantly more expensive option that achieved a similar or lesser level of results than a less expensive option not selected.]

The problem in going beyond the present requirement of section 11.82(d)(2) to *consider* "[t]he relationship of the expected costs of the proposed action to [its] expected benefits[,]" is two-fold. First, can we satisfactorily define the benefits in monetary terms that can be compared

with the costs? Second, can we define "disproportionate?"

We do not believe that there is any significant disagreement on the principle that money should not be wasted in the process of "restor[ing], replac[ing] or acquir[ing] the equivalent of" injured, lost or destroyed natural resources. The issue is how one places an economic "dollars and cents" value on given resources. The problem analytically as regards the cost benefit consideration in term of being "grossly disproportionate to value" is defining the value of the benefit provided by the restoration, replacement or acquisition cost involved. There have been significant levels of effort by academics and people in the public policy world to try to measure the value of injured resources in monetary terms. Every effort has been severely criticized by some significantly interested constituency. The litigation history is unhelpful.

The question is thus reduced to gut feelings of the value being achieved by a restoration. Once you figure out what it will cost, is it worth it? There is actually little further guidance that can be created on this point. Unless and until there is an agreed methodology for assessing the dollar value of resource injury/ benefits (and this is not a case of waiting for a scientific breakthrough), the current regulatory language appears to be as far as DOI should go.

3. Should there be mandatory "threshold criteria" for restoration alternatives instead of the current system of ten unweighted discretionary criteria?

As presented, the question assumes that the ten criteria at §11.82(d) are "unweighted" and asks whether within (or outside of) this universe of criteria there are mandatory criteria that ought to be considered in assessing restoration alternatives.

Perhaps more precisely stated, the question presented here should be whether we can be more prescriptive in describing factors that ought to be considered in selecting alternatives under §11.82. In considering the unweighted criteria in §11.82, we concluded that (1) technical feasibility and (10) compliance with the law, should be, in fact, required, along with a "reasonable nexus to injury." Two of the criteria, (2) costs v. benefits and, (3) cost effectiveness generally constitute "balancing tests" to be applied in considering the other six criteria. These other six criteria (4) – (9) constitute potentially useful, but relatively unweighted criteria that ought to be considered depending upon the circumstances.

In developing a more prescriptive approach to the identification of alternatives in the DOI regulations, consideration should be given to the approach in 15 CFR §§990.53 and 54 in developing a methodology that embraces technical feasibility, compliance with the law and nexus to the injury. Further discussion of the requirements of §§990.53 and 54 is therefore in order.

4. Is more guidance needed on the appropriateness of projects that provide "services" (such as recreation) without enhancing natural resources?

This issue arises where trustees pursue projects that would provide human use benefits directly as opposed to projects that would provide those benefits less directly through restored natural resources. Restoring services rather than natural resources is emphasized. Such efforts might include making more resources available for human use or providing more people with opportunities to use existing resources. For example, a new fishing dock would allow more people to fish, and increasing fish stocks would make more fish available to people. Other examples within this category are boat ramps, trails, cabins, visitor centers, park facilities, environmental education facilities and programs, parking lots, stocked fishing ponds and aquaria. Concerns with projects of this nature center on two factors: the strength of the connection between the services they provide and the lost, injured or destroyed natural resource; and the proportion of sums recovered that is committed to providing direct, rather than indirect, services to humans.

"Sums recovered" under CERCLA for natural resource damages generally must be used to "restore, replace, or acquire the equivalent of" injured, lost or destroyed natural resources. 42 U.S.C. 9607(f)(1). Under DOI's natural resource damages regulations, the lost services that the injured, lost or destroyed natural resources would have provided are compensable.

> The measure of damages is the cost of restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. Damages may also include, at the discretion of the authorized official, the compensable value of all or a portion of the services lost to the public for the *time period from the discharge or release until the attainment of the restoration, rehabilitation, replacement, and/or acquisition of equivalent of the resources and their services to baseline*.

43 C.F.R. 11.80(emphasis added)(Attachment 1). As indicated in the italicized language, compensation claims may include the period starting with the release and ending with the return of resources and services to baseline. The selection of restoration alternatives is limited, however, by factors the regulations require to be considered, including cost-effectiveness and the relationship between a project's cost and its expected benefits. 43 C.F.R. 11.82(d)(Attachment 2).

Additionally, the DOI regulations permit trustees to consider alternatives that will return the natural resources and services to baseline as quickly as possible.

> The possible alternatives considered by the authorized official that return the injured resources and their lost services to baseline level could range from: *Intensive action on the part of the authorized official to return the various resources and services provided by those resources to baseline conditions as quickly as possible*; to natural recovery with minimal management actions. Possible alternatives within this range could reflect varying rates of recovery,

> combination of management actions, and needs for resource replacements or acquisitions.

43 C.F.R. 11.82(c)(1)(emphasis added)(*see* Attachment 1). Projects that directly provide human use benefits more rapidly than would resource restoration serve this section's purposes, but under CERCLA, must relate to restoring, replacing or acquiring the equivalent of the natural resource.

It is also instructive to consider the OPA regulations that bear on this point.

> The goal of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701 et seq., is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident). *This goal is achieved through the return of the injured natural resources and services to baseline and compensation for interim losses of such natural resources and services from the date of the incident until recovery.*

15 C.F.R. 990.10(emphasis added)(*see* Attachment 2). Thus, direct restoration of human services is permissible under both the CERCLA and OPA regulations.

A regulation amendment is not needed. In some cases, positions favoring human use related projects have been based on interests unrelated to the loss or restoration of natural resources and their services. Economic development, for example, has been advanced as a basis for project identification and selection. Objections to such projects can be expected from stakeholders with ties to the natural resources. In other cases, responsible parties have objected that projects intended to benefit human use stray too far from direct restoration of the natural resources. And trustees uniformly value the ability to exercise discretion on a site-specific basis.

With a balance seemingly struck in the DOI NRDA regulations that bear on the above question, it does not appear that a regulatory amendment is needed.

The full FACA Committee should recommend further guidance. Past disagreement among stakeholders and trustees indicate further guidance on the appropriateness of projects that provide "services" (such as recreation) without enhancing natural resources would be useful. It is therefore suggested that the full FACA Committee recommend further guidance.

Guidance on the propriety of projects that directly provide human services could range from imposing limits on those projects, to expressly defining the strength of the connection needed between the project and the natural resource, to identifying specific instances where such projects are appropriate. Each of the possibilities discussed below may be used individually or in combination.

a. It could be recommended that the DOI regulations (or guidance) limit how far trustees can stray from ecological restoration or enhancement when using sums recovered for lost human use services.

Language could be developed stating that the *primary purpose of restoration is to restore* natural resources, but permitting human use projects if demonstrated to be appropriate under the site's circumstances. This approach would be consistent with the responsibilities of natural resource trusteeship while preserving the trustees' discretion and site-specific flexibility. Also, this approach is less likely than others to result in arbitrary decision-making. The flexibility and discretion preserved by this approach, however, leaves open the potential for outside influences on decision-makers. And to a degree, a difficulty also exists in identifying a standard applicable to all sites, *i.e..,* that standard required to justify departure from ecological restoration.

Guidance could also seek to strike a balance by *providing a preference* for ecosystem restoration while leaving open opportunities for human use projects. This approach also preserves the trustees' flexibility and discretion, and may not suffer from the potential for arbitrariness that might exist with other approaches. But as with the first, the flexibility and discretion preserved by this approach leaves open the potential for outside influences on decision-makers.

Factors could be identified for trustees to consider when developing a human use project. Trustees pursuing an educational project, for example, could be required to show how human behavior affected by the project is connected to the natural resources, and the rationale underlying the identified connection. While this approach may not suffer from arbitrariness, it could result in unanticipated limitations of site-specific discretion and flexibility.

Guidance language could suggest that trustees set out *proportions* (e.g., dollars or number of projects) for what percentage of projects would be focused on restoring natural resources and what proportion on restoring human use services. An advantage of this approach is it would retain some of the flexibility presently available in the regulations while at the same time limiting the exposure of trustees' decision-making to outside influences. On the other hand, it would be difficult to determine in a vacuum where the proportion/percentage line should be drawn since ecological and public interests, as well as the interests of diverse trustees, vary from one site to another. Accordingly, it may be most appropriate to permit decisions for use of sums recovered to be made on a case-by-case basis. Additionally, the broadly applicable limitations included in this approach may result in arbitrary decisions.

Guidance could be developed that articulates *outside bounds* of what can be done toward human use restoration. When compared to the previous approach, this one preserves greater flexibility and permits trustee representatives to exercise their expertise and knowledge of site needs. Additionally, this approach may not risk arbitrary decisions. But this approach suffers the same difficulty as the previous, to a lesser degree, with respect to applying the same standard to all sites – in this instance, the boundaries imposed on enhancing human use.

b. It could be recommended that a nexus to the injured natural resources be required for out-of-kind restoration projects.

There is a general preference for on-site or in-kind restoration projects. Examples of out-of-kind projects include hazardous waste disposal programs, and the rescue tug. This approach contemplates that a demonstrable nexus exist between the services lost by harm to the ecosystem or natural resources and the human use enhancement being pursued.

Language could be proposed that simply states such a nexus is required. This "minimalist" approach would aid in ensuring out-of-kind projects have some relation to the injured natural resources while generally retaining trustee flexibility and discretion. The absence of definition or explanation of the strength of the nexus required may, however, leave open a potential for practical avoidance of the requirement or arbitrary decisions.

Guidance language could be developed that attempts to describe or define the strength of the nexus required for out-of-kind projects. This approach would provide greater certainty in applying the nexus requirement, while retaining most of the trustees' flexibility and discretion. It would be difficult, however, to draft language applicable to all sites that accounts for the numerous factors and interests existing among all sites.

c. It could be recommended that the regulations affirmatively recognize that a project providing cultural services (but not enhancing natural resources) is appropriate where cultural uses were lost.

Most commonly, cultural values are directly connected to natural resources where those resources are under the trusteeship of the U.S. National Park Services (American culture) and Indian tribes (tribal-specific culture). Recognition in guidance that projects are appropriate when providing cultural services but not enhancing natural resources would foster trustee efforts to reinvigorate lost or diminished cultural values. For example, the long-term impacts mining contamination has on human resource use can extend for generations, resulting in the loss of connection to, and appreciation of, the affected resources. If not sufficiently explained or defined, however, problems could arise similar to those discussed elsewhere concerning the need for a nexus between projects and injured natural resources.

5. Are there other revisions that should be suggested to the existing criteria for evaluating restoration alternatives?

a. Is there a need for revisions to the Rule?

The fact that the existing decision criteria have already survived judicial review provides

a strong disincentive to changing them. Nonetheless, for several reasons we recommend that DOI seriously consider revisions to the criteria and/or guidance aimed at giving trustees more practical assistance in choosing among potential alternatives.

(1) The subcommittee members perceive the decision criteria as imposing few constraints on the trustees' discretion. On the one hand, there is consensus among the subcommittee that allowing the trustees broad discretion to fashion a restoration plan to fit the specific facts of each case is highly desirable and important to preserve. On the other hand, the existing criteria appear to be so completely open-ended as to give trustees little real guidance on how to select within the wide universe of potential restoration, replacement, or acquisition options.

(2) Trustees appear to have used the Type B decision criteria formally in assessments on only a few occasions (such as Fox River/Green Bay). The fact that trustees have made so little use of the criteria in itself suggests that they have not viewed them as providing valuable guidance. It also means that the criteria could be revised without concern about losing the benefits of extensive precedents or an established "practice."

(3) The existing Type B criteria do not address some of the key issues that are inherent in the restoration planning process. Perhaps most importantly, the Type B rule does not explicitly require trustees to evaluate:

(i) the relationship (or "nexus") between a proposed alternative and the injured natural resources and the services they provided,
(ii) the extent to which an alternative will provide *long-term* benefits to the ecosystem and the public, and
(iii) the value or acceptability of each alternative to the affected community(ies).

(4) The Type B criteria also provide little guidance on how to evaluate several specific types of "restoration" alternatives that have been suggested repeatedly in individual cases, such as:

- actions to prevent or minimize the effects of *future* pollution events;
- research facilities or programs;
- public education facilities or programs;
- amenities to enhance public access to natural resources, such as trails, cabins, restrooms, visitor centers, boat launches or piers, or parking facilities;
- other types of actions to provide recreational opportunities as compensation for recreation lost due to the injury; and
- actions to preserve or enhance cultural uses of natural resources or to preserve cultural artifacts in the natural environment.

While it would be impractical to address all such "second-order" issues directly in a workable list of decision criteria, the criteria should at least provide an intellectual framework that makes it easier for trustees (and the public) to analyze such issues in light of the NRD program's overall objectives and policies. In the sub-committee's view, the existing criteria do not satisfy that standard.

(5) The restoration planning processes under CERCLA and OPA present essentially identical procedural and substantive issues. Nonetheless, there are significant differences in the criteria for selecting among restoration alternatives between the DOI and NOAA rules. To the extent practicable, it seems desirable to make the decision criteria for restoration planning under CERCLA and OPA more similar to one another and to develop guidance common to both processes.

b. What Rule revisions should be considered?

The possible variations are endless. To narrow the focus of this preliminary discussion, we use two "ground rules": (1) Add to or change existing criteria only to address a specific omission or other deficiency; and (2) Look first to the OPA rule for potential revised criteria and craft new language only when nothing in that rule addresses the identified deficiency. There are a few internal inconsistencies within these suggestions, but those can be resolved in the next draft.

As noted above, we have identified three particularly significant issues that the existing Type B criteria do not directly address:

- the relationship (or "nexus") between a proposed alternative and the injured natural resources and the services they provided,
- the extent to which an alternative will provide long-term benefits to the ecosystem and the public, and
- the value or acceptability of each alternative to the affected community(ies).

i. <u>Nexus</u>.

The first missing element – the degree of nexus between an alternative and the injury – is a central component of the analytical framework that trustees need to address the "second-order issues" identified above. It poses the most relevant question of all: How close will a proposed alternative come to achieving the trustees' core objectives or returning injured resources and/or the services they provided to baseline and compensating for interim losses? The closer the

connection between the alternative and overcoming the specific injury at issue in the case, the clearer it is that the project is appropriate. On the other hand, if the trustees cannot clearly articulate the relationship between an alternative and specific injured resources or lost services of the injured resources, the alternative would be at best questionable.

Although some of us would prefer different language if we were starting from scratch, the OPA rule contains a provision that covers this issue adequately: "The extent to which the alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses[.]" 15 C.F.R. § 930.54(a). Consistent with our suggested objective of bringing the OPA and Type B rules more closely into alignment, we recommend that DOI consider adding this provision (or language that has the same effect) to the Type B decision criteria.

ii. Permanence of benefits.

At the heart of the natural resource damages provisions of CERCLA and OPA are two principles: that the government (federal, state, and tribal) holds or manages natural resources as a "trust" for the benefit of the public, and that the only appropriate way to vindicate the public's interests when this trust is injured is to rebuild the trust (which can be done either by directly repairing the specific injured resources or by somehow creating or making available equivalent resources). Both of these principles imply that the public interests in natural resources protected by these statutes are long-term, or even essentially (from our limited human perspective) permanent. That, in turn, suggests that trustees should strongly favor restoration alternatives that promise enduring improvements or protections of natural resources, with benefits to future generations counting at least as heavily as benefits to the current population. None of the existing Type B decision criteria, and none of the OPA criteria, reflects this fundamental point in any way.

To fill this void, we recommend that DOI consider adding a new criterion similar to the following: "the extent to which each alternative will provide long-term benefits to the ecosystem and the public." This formulation would not necessarily preclude trustees from selecting an alternative that provides only temporary benefits, *e.g.* as compensation for interim losses that fell heavily on an identifiable community, or projects that are inherently vulnerable to natural destructive forces (such as coastal marsh projects in Lousiana). However, it would in effect force trustees to articulate specific reasons for selecting actions with only short-term benefits and, appropriately, put pressure on them to give greater consideration to alternatives that will hold up for the long run.

iii. Community acceptance/valuation.

Although the Type B rule and Section 111(i) of CERCLA require an opportunity for public comment on any proposed restoration plan before it is implemented, that public comment process is not necessarily adequate to ensure that community preferences are fully taken into

account in the restoration planning process. That is because the public's reactions to an already-formed proposed plan are unlikely to reveal relevant public attitudes towards potential restoration alternatives that did not make it into the final proposal and, in any event, will rarely provide a quantitative basis for comparing the benefits of potential alternatives. In recent years, researchers have developed sophisticated tools, such as conjoint analysis, that trustees have occasionally used to evaluate systematically public perceptions of a range of alternatives. While trustees certainly should not be required to use such tools (which tend to be expensive and time-consuming) in most cases, they should be encouraged to engage in some form of community outreach before completing the formulation of a proposed restoration plan.

To accomplish that, we recommend adding a criterion along the lines of the following: "Public acceptance and/or valuation of the alternative in the affected community(ies)." This would give trustees flexibility on how to assess community views in a given case but would expressly recognize that "affected community" views should be considered. The size and composition of the affected community or communities will vary widely from case to case, ranging from solely local residents to entire county or state populations and/or Indian tribes to, in the relatively rare cases where the injured resources are nationally-renowned, all citizens.

iv. Other potential improvements.

We suggest the following, in order of priority.

(a) Replace criteria (6) and (7) in the current Type B rule (natural recovery period and ability of the ecosystem to recover with or without action) with the following: "the extent to which the alternative will accelerate the recovery of injured resources or services and the magnitude of interim lost services during the recovery period."

(b) Delete criterion (9) (consistency with federal, state, or tribal policies) because it is unnecessary and difficult to apply. In practice, trustees will always try to apply their policies, but shifts in policy with political winds and ambiguities in what qualifies as "policy" in this context make this an awkward test to apply formally.

(c) Add within criterion (1) ("Technical feasibility, as that tem is used in this part") the clause ", and likelihood of success." This would incorporate one of the OPA rule's criteria. It would also underscore the point that "technical feasibility" does not mean success is guaranteed while requiring trustees to take into account differences in the probability that various restoration alternatives will hold up without further action.

(d) Replace criterion (5) in the existing Type B rule ("Potential for additional injury . . .") with a provision similar to criterion (4) from the OPA rule ("The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative[.]").

6. Do we need to foster an earlier focus on restoration in the NRDA process? If so, how?

Under the existing Type B Rule, trustees are first directed to identify and begin considering restoration alternatives during the Damage Determination Phase, when they prepare a Restoration and Compensation Determination Plan ("RCDP"). *See* 43 C.F.R. § 11.80. Where the trustees are following the Rule step by step, this would typically occur two years or more into the NRDA process. The subcommittee is considering various ways to require, or at least encourage, an initial screen for restoration opportunities earlier in the process, possibly at the preliminary assessment stage. Such a change would foster early restoration-based settlements, would help ensure timely identification of alternatives that might become unavailable if not acted on early (e.g., valuable habitat available for purchase, which might be acquired for development if the trustees do not act early), and would allow the trustees to design the rest of the assessment to provide the information needed to evaluate the identified restoration possibilities.

7. What role, if any, should pre-existing regional restoration plans play?

Currently, the CERCLA rule does not speak of regional restoration planning; neither encouraging nor discouraging the use of such plans. The current example for federal regulatory language incorporating regional restoration planning in natural resource damage assessment is found within the OPA rule,[1] which encourages the use of Regional Restoration Plans or existing restoration projects to facilitate restoration. Section 990.56 of the OPA rule states that trustees may select all or part of an existing plan or project as the preferred alternative for restoration so long as the plan or project: i) Was developed with public review and comment or is subject to public review and comment; (ii) will adequately compensate the environment and public for injuries resulting from the incident; (iii) addresses, and is currently relevant to, the same or comparable natural resources and services as those identified as having been injured; and (iv) allows for reasonable scaling relative to the incident. Other factors to consider are whether a pre-existing plan or project advances the restoration process and makes implementation simpler, or to what extent does the pre-existing plan or project provide adequate details to implement the restoration.

Regional restoration plans should be one of the tools available to trustees under the CERCLA rule to increase efficiency and expediency in assessments and restoration.

The CERCLA rule should allow the use of regional restoration plans or existing restoration projects. If DOI decides not to revise the CERCLA rule itself, then guidance on the use of regional restoration plans or existing restoration projects could be provided through a public NRDAR program memo or in the preamble discussion of any rulemaking as a follow-up to the full FACA Committee recommendations.

[1] The text of sections 15 CFR 990.15 and 990.56, which speak to regional restoration planning, are attached.

The use of regional restoration plans or existing restoration projects can be an efficient and cost-effective way to implement restoration. Pre-existing plans can range from simple data bases of projects to complex, region-wide plans. Such plans can identify potential restoration projects, screen known potential restoration projects (perhaps even identify projects with various resource types), or develop potential projects through the engineering and design phase. Examples of pre-existing plans include tribal resource management plans, bird recovery plans, or detailed state or region-wide plans.

CERCLA intends that restoration actions make the environment and public whole for natural resource and/or service injuries resulting from a release of a hazardous substance. Although the site-specific development of restoration plans is preferred for most cases, such site-specific plan development may be impractical and costly. In those cases, trustees should be encouraged to identify existing Regional Restoration Plans or other existing restoration projects that may be applicable in a particular case. These plans or projects may be appropriate so long as natural resources and/or services comparable to those expected to be injured are addressed in the plans. In no event may the use of a regional restoration plan or other existing proposed restoration project violate the statutory requirement that natural resource damages must be used solely to restore, rehabilitate, replace, or acquire the equivalent of natural resources injured and services lost.

Whether an existing plan or project represents appropriate restoration, rehabilitation, replacement, or acquisition of the equivalent will depend on the nature of the site and the restoration plan or project. The use of possible restoration actions in an existing plan or project should be evaluated within the range of restoration alternatives that trustees are required to consider, including natural recovery. Regional restoration plans should be developed in such a way that trustees are able to justify linking the injuries from a particular case with a specific restoration project or set of projects within the plan. This may be facilitated by describing the types of anticipated injuries to specific natural resources within a region, and describing these injuries in terms of the types and importance of functions and services, ecological and human use.

8. How (if it is worthwhile at all) can the NRDA process be made more compatible with the "integration" or coordination of response action planning with injury assessment and restoration planning?

a. BACKGROUND

Currently, after much time, energy and money is expended in a clean up of an uncontrolled hazardous waste site, there remains a question: is the responsible party liable for natural resource damages? The process of answering this question is the subject of these NRDA

regulations, but do the regulations ask the question too late in the clean up?

It is possible, and not infrequently the case, that a second action or a lawsuit awaits the responsible party that has neglected to assess and account for natural resource damages during clean up of a Superfund site. A process of "Integrating" response actions (investigation and clean up) and resource restoration actions has been suggested to address this contingency.

There is no outright prohibition to performing additional response actions in the current NRDA regulations. The regulations do, however, require as a prerequisite to performing a damage assessment (and hence as a prerequisite to injury assessment, damage determination, restoration planning, etc.) that Trustees perform a "Preassessment screen" (11.23). The purpose of the Preassessment screen or PAS is to determine whether there is a reasonable probability of making a successful claim before funds are expended in an assessment.

For the PAS, a number of questions are to asked; some address the jurisdictional elements of a claim:

- Was there a release of a hazardous substance?
- Have trust resources been or are they likely to be adversely affected?
- Release quantity and concentration sufficient to cause injury?

Other PAS questions address the cost of initial data collection and the whether the response actions have taken care of the problem:

- Sufficient data readily available or obtained at reasonable cost?
- ***Will or have the response actions carried out or are planned, sufficiently remedy the injury without further action?***

This last question is somewhat open-ended**.** *Will or have the response actions* ***carried out or are planned****, sufficiently remedy ….?* The question implies that further response actions *could* be taken prior to finishing a PAS. If the implied meaning is taken, then the regulations seem to allow for and do not impede integration of restoration with *additional* response actions. If, on the other hand, the approach is simply to answer "yes" or "no," and move on, a damage assessment (when the answer is "no") may be performed and the opportunities for integration are limited by whether the trustees and the response agencies care to coordinate their actions.

Conclusion: The regulations as written do not impede integration, but do not explicitly call for integration and do not provide an optimal path to encourage integration.

b. Is There a Need or is It Desirable to Encourage Integration of Restoration With Response?

Many responsible parties feel that the most effective way to address the natural resource

concerns of Trustees is proactively integrate early response actions that address those concerns with the planned remedial response actions. However, responsible parties often see the Natural Resource Trustees for the first time on the "back end" of what may have been a contentious, unpleasant and expensive encounter with the U.S. Environmental Protection Agency and/or a state clean up agency.

Whether it is fair or unfair, there nevertheless is a perception among responsible parties that NRDA is a "second clean up" and that this is wasteful and inequitable. The "second clean up" has long been a source of a perceived unfairness on the part of the government, which is perceived as already having extracted significant effort and expense from the responsible party during the earlier clean up. In extreme cases, the perception is that the NRDA process and the Trustees illustrate the uncoordinated and capricious workings of a heavy-handed tyrant. Whether fair or unfair, it is usually the Trustees who are saddled with the burden of this perception.

Integration of restoration and response offers an opportunity to remedy perceived inequities and unfair labels. Beyond these, the responsible parties value predictability for business decision making. Integration can help to provide predictability by reducing or eliminating the possibility of having to do a "second clean up."

c. Regulatory Changes To Address Integration of Response With Restoration

A primary focus of integration or response with restoration is on predicting work scope, reducing assessment costs and reducing potential liabilities. Where possible, responsible parties desire to reduce or eliminate redundancies, e.g., performing a baseline ecological risk assessment to be followed some time later by a separate injury assessment.

Avoiding redundancies will require earlier incorporation and more accurate characterization of the potential natural resource risks into the response investigations. Earlier planning for taking restoration actions, plus maximizing opportunities for streamlining response investigations and taking more efficient risk reduction actions aimed at protection of natural resources, will help control the work scope and decrease overall resource assessment costs.

In order to accomplish integration, a revised regulation would need to explicitly provide an option for responsible parties to work with the Trustees for the purpose of scoping out and taking early restoration actions. Examples of these early actions are: 1) identification and evaluation of natural resource risk and injury; 2) determination of the restoration work scope and development a restoration plan; and, 3) identification of any actions needed in order to protect against loss or injury to natural resources during the response action.

An example of how the regulation could provide the required option, we focus again on the PAS phase. The PAS would need to be explicitly *iterative* in order to: 1) integrate data quality objectives (DQOs) for NRDA sampling and analysis with DQOs for remedial

investigations; 2) integrate conceptual models for risk and injury investigations with focused sampling and analysis plans developed in (1); 3) scope out the potential for collateral ecological damage due to the remedial actions themselves; and, 4) develop a restoration plan based on the integrated data sets, risk models and investigatory information collected during the response actions.

The PAS could also be the section in the regulation where responders and Trustees collaborate to incorporate data collected on site into an analysis of already scoped out restoration alternatives.

If the Trustees develop a restoration plan before injury and damage assessment normally would occur under the current regulations and the responders provide the site access and data that will enable validation or modification of the restoration plan, the response process can then be directed at the natural resources as well, leaving a reduced need to resort to claims for damages. The latter option is of course retained, but in we can expect that creative energies and financial resources would then be more focused on the restoration of natural resources instead of a potential legal battle – another illustration of Environmental Conflict Resolution.

Integration is by necessity, dependant on the response process and the responders. It will work best and perhaps only when the responsible parties are actively engaged in the response actions. Therein also lies what potentially is the biggest obstacle: non-cooperation of the response action regulators. That is an issue that can not be addressed by this rule, and it is for this reason that Integration should remain an optional pathway for Trustees and responsible parties.

Attachment 4 is included with this paper as a suggestion of how the U.S. Department of Energy envisions the Integration process to work.

IV. Summary: Potential Actions by DOI

The provisions of the existing Type B Rule for evaluating potential restoration/rehabilitation/replacement/acquisition projects have the enormous benefit of allowing trustees broad discretion to tailor restoration plans to fit the unique circumstances of each case. In considering whether to provide additional guidance or to revise the Rule with respect to the selection of restoration alternatives, DOI must be careful to preserve that discretion.

Despite that caution, this subcommittee believes that DOI can provide constructive guidance that does not unduly constrain trustee discretion, through both non-binding guidance documents and revisions to the Rule that build on the experience in restoration planning that federal, state, and tribal trustees, responsible parties, and public interest organizations have accumulated. While the specific potential actions described in this draft report are highly preliminary and will surely change with further discussion, we clearly recommend that DOI take

action in this area rather than leaving the Rule in its present form.

1. Formal or informal guidance

The subcommittee recommends that DOI develop written guidance on how trustees should analyze (among other things that could be covered) the commonly-raised, but potentially controversial, types of "restoration" alternatives listed in point a.(d) under sub-question 5 above. We specifically recommend that, in framing such guidance, DOI consider the thoughtful June 24, 2005, memorandum by Robert A. Taylor of NOAA entitled "Legal Guidance Regarding Natural Resource Damage Restoration Under CERCLA and OPA," which is appended as Attachment 3.

2. Potential revisions to the Type B Rule

The potential revisions to DOI's Type B Rule that have been suggested for consideration by the subcommittee include the following:

a. Require trustee consideration of on-site, in-kind restoration, in addition to the existing requirement that trustees consider a no-action alternative.

b. Revise rule so that technical feasibility, compliance with the law, and an appropriate nexus to the injury are mandatory threshold criteria

c. Limit how far trustees can stray from ecological restoration or enhancement by requiring a nexus to the injured natural resource for out-of-kind restoration projects

d. Affirmatively recognize that a project providing cultural services (but not enhancing natural resources) may be appropriate where cultural uses are lost

e. Nexus to injury: add "the extent to which the alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses," or something like it to the type B criteria

f. Permanence of benefits: add a new criterion similar to the following: "the extent to which each alternative will provide long-term benefits to the ecosystem and the public."

g. Community acceptance/valuation: add a criterion along the lines of the following: "Public acceptance and/or valuation of the alternative in the affected community(ies)."

h. Replace criteria (6) and (7) in the current Type B rule (natural recovery period and

ability of the ecosystem to recover with or without action) with the following: "the extent to which the alternative will accelerate the recovery of injured resources or services and the magnitude of interim lost services during the recovery period."

i. Delete criterion (9) (consistency with federal, state, or tribal policies) because it is unnecessary and difficult to apply. In practice, trustees will always try to apply their policies, but shifts in policy with political winds and ambiguities in what qualifies as "policy" in this context make this an awkward test to apply formally.

j. Add within criterion (1) ("Technical feasibility, as that tem is used in this part") the clause ", and likelihood of success." This would incorporate one of the OPA rule's criteria. It would also underscore the point that "technical feasibility" does not mean success is guaranteed while requiring trustees to take into account differences in the probability that various restoration alternatives will hold up without further action.

k. Replace criterion (5) in the existing Type B rule ("Potential for additional injury . . .") with a provision similar to criterion (4) from the OPA rule ("The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative[.]").

l. Add to either §11.82(c) or §11.82(b) a new paragraph (3) with language similar to: "trustees may select all or part of an existing plan or project as the preferred alternative for restoration so long as the plan or project: i) Was developed with public review and comment or is subject to public review and comment; (ii) will adequately compensate the environment and public for injuries resulting from the incident; (iii) addresses, and is currently relevant to, the same or comparable natural resources and services as those identified as having been injured; and (iv) allows for reasonable scaling relative to the incident. Other factors to consider are whether a pre-existing plan or project advances the restoration process and makes implementation simpler, or to what extent does the pre-existing plan or project provide adequate details to implement the restoration" from the OPA rule.

m. Explicitly provide an option for responsible parties to work with the Trustees for the purpose of scoping out and taking early restoration actions. Examples of these early actions are: 1) identification and evaluation of natural resource risk and injury; 2) determination of the restoration work scope and development a restoration plan; and, 3) identification of any actions needed in order to protect against loss or injury to natural resources during the response action.

n. Explicitly make PAS *iterative* in order to: 1) integrate data quality objectives (DQOs) for NRDA sampling and analysis with DQOs for remedial investigations; 2) integrate conceptual models for risk and injury investigations with focused sampling and analysis plans developed in (1); 3) scope out the potential for collateral ecological

damage due to the remedial actions themselves; and, 4) develop a restoration plan based on the integrated data sets, risk models and investigatory information collected during the response actions.